

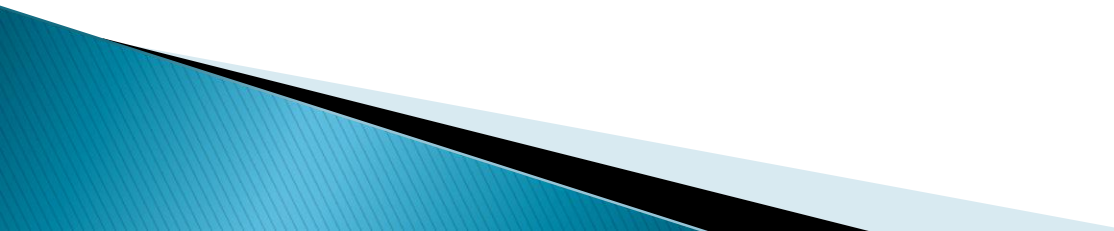
TISSUE DILATION

Dr. Ahmad El-Kouedi

Lecturer of crowns and Fixed Prosthodontics

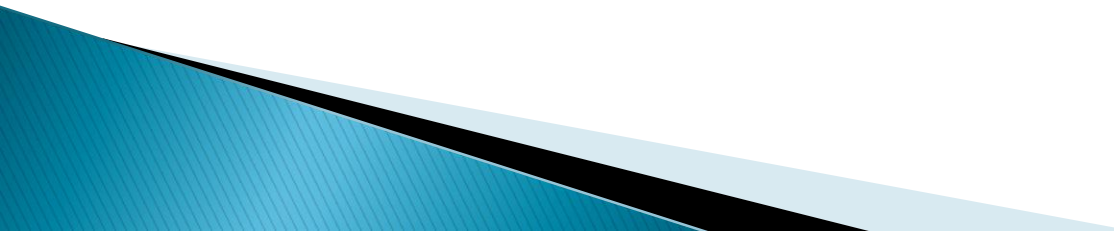
- ❖ DEF: It is the process of temporarily pushing the gingival marginal tissue away from the tooth structure for inspection, preparation and impression taking
- ❖ IND: During examination for better visibility during prep to minimize tissue damage facilitate better impression taking during finishing, checking and cementation

REQUIREMENTS

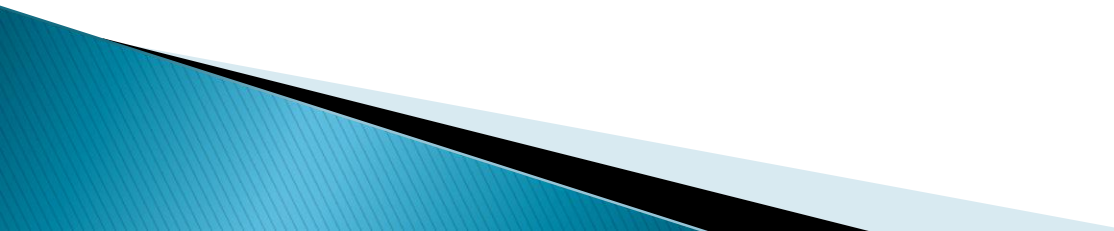
- ❖ Must create enough space for the impression material to flow and record the finish line in a horizontal and vertical dimension
 - ❖ Create a clean and dry area free of blood and debris
 - ❖ Maintains a healthy periodontium
- 

I) MECHANICAL METHOD

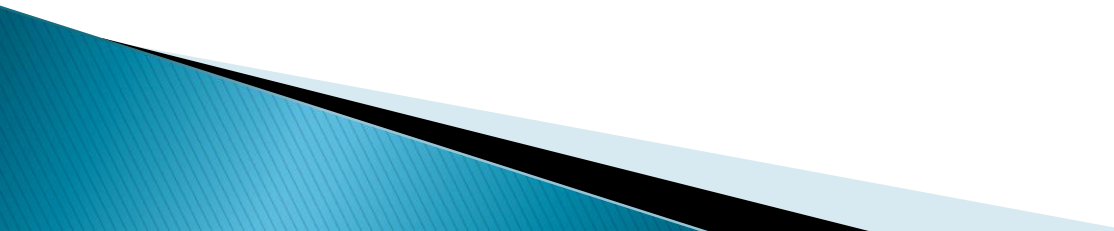
- ▶ It was the first to be developed
- ▶ Last for 24 hours, if left longer it can cause permanent damage to the soft tissue
- ▶ Can be done by using:
 - ▶ 1– ZnO or soft GP (gauze + ZnOE mix)
 - ▶ Used when hypertrophy is confined to interproximal area
 - ▶ 2– Temp Cr with GP or Copper band
 - ▶ Used when there is generalized hypertrophy
 - ▶ Margins must be trimmed and not cause blanching of the gingiva

- ▶ 3– Rubber Dam, advantage is that it produces isolation that during prep
 - ▶ 4–Ortho rubber band
 - ▶ 5– Waxed or unwaxed dental floss
 - ▶ 6– Untreated strings and chords
- 

II) CHEMICO-MECHANICAL METHOD

- ▶ Universally most accepted method
 - ▶ Needs 5–10 mins only
 - ▶ Cord produces the physical retraction, while the chemical astringent action stops bleeding and retraction.
 - ▶ Cord placed into gingival crevice using a blunt instrument, there are specially designed instruments for the procedure
- 

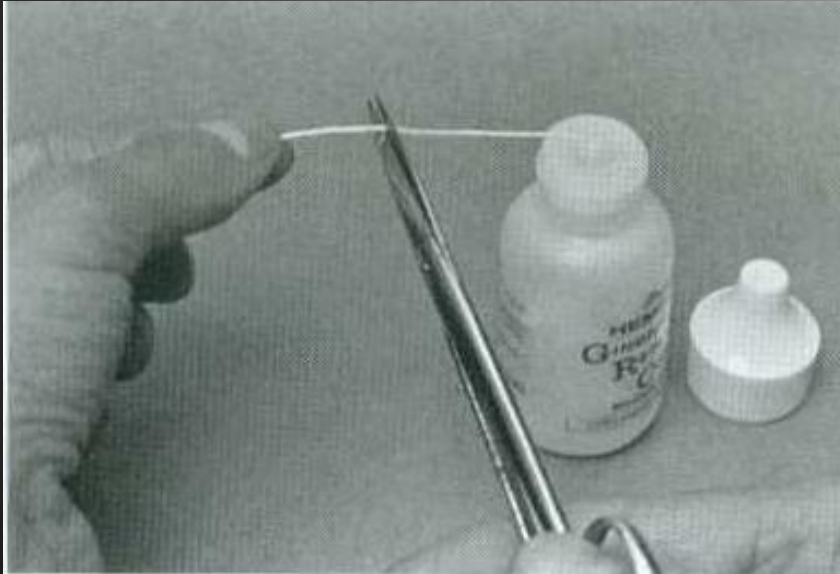
Chemicals used

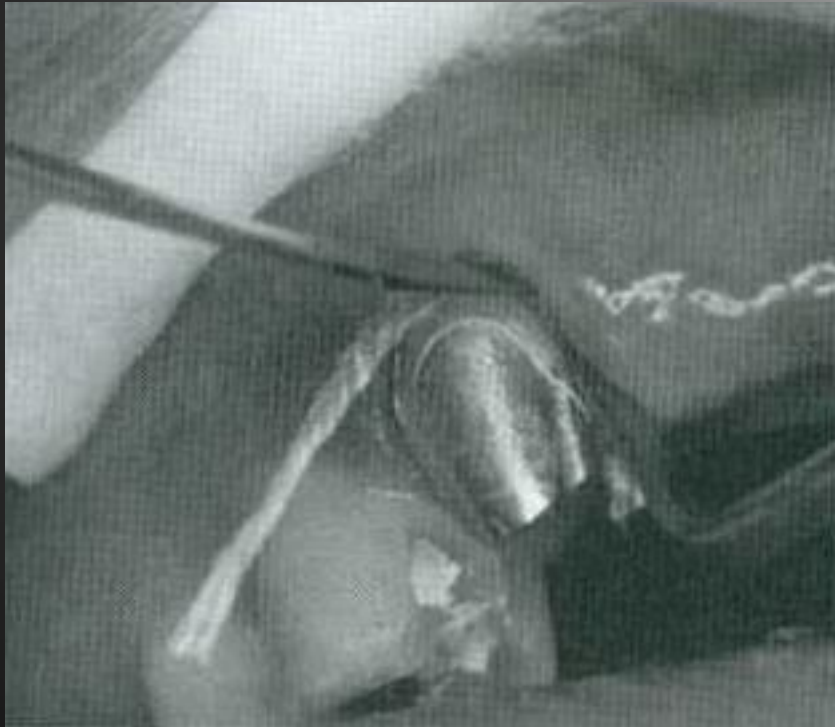
- ▶ Epinephrine 1 / 1000 or 8%
 - ▶ Al_2Cl_3 5– 25%
 - ▶ Alum solution 100%
 - ▶ Ferric Sulphate 13.3%
 - ▶ Tannic acid 20–100%
 - ▶ Negatol solution $\leq 45\%$
- 

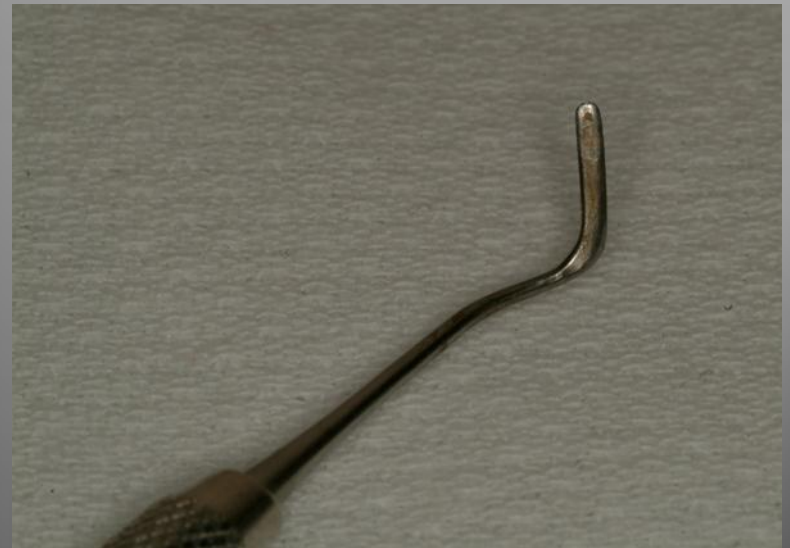
Common products on the market

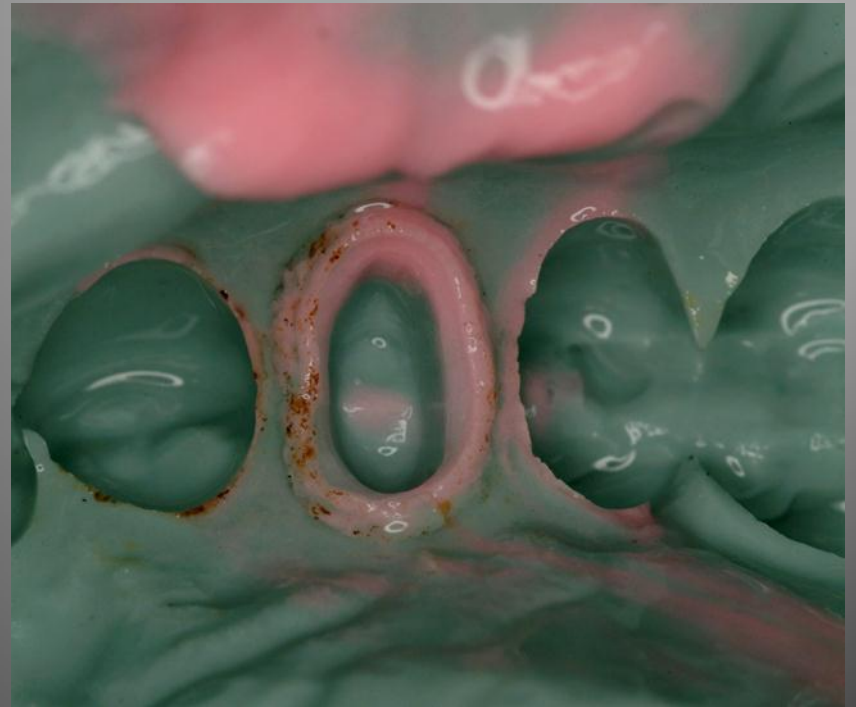
| Acidity of Commonly Used Hemostatic Agents | | | | TABLE 14-1 |
|--|--------------|------------------------------------|------------------|------------|
| Agent | Manufacturer | Active Ingredient | Vehicle | Mean pH |
| Astringedent | Ultradent | 15.5% $\text{Fe}_2(\text{SO}_4)_3$ | Aqueous | 0.7 |
| Gingi-Aid | Gingi-Pak | Buffered 25% AlCl_3 | Aqueous | 1.9 |
| Styptin | Van R | 20% AlCl_3 | Glycol | 1.3 |
| Hemodent | Premier | 21.3% AlCl_3 -6-hydrate | Glycol (aqueous) | 1.2 |
| Hemogin-L | Van R | AlCl_3 | Aqueous | 0.9 |
| Orostat 8% | Gingi-Pak | 8% Racemic epinephrine HCl | Aqueous | 2.0 |
| VicoStat | Ultradent | 20% $\text{Fe}_2(\text{SO}_4)_3$ | Aqueous | 1.6 |
| Aluminum chloride 25% | USP | 25% AlCl_3 | Aqueous | 1.1 |
| Stasis | Gingi-Pak | Basic $\text{Fe}_2(\text{SO}_4)_3$ | | 0.8 |
| For comparison: Ketac Dentin Etching Liquid | | | | 1.7 |

Method of placement





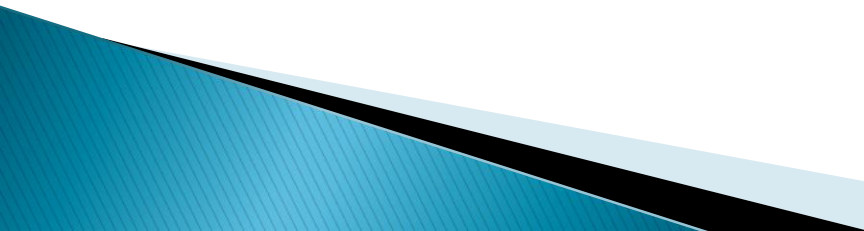


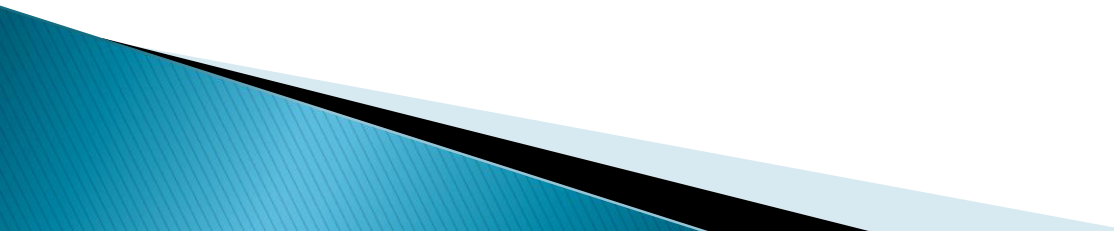






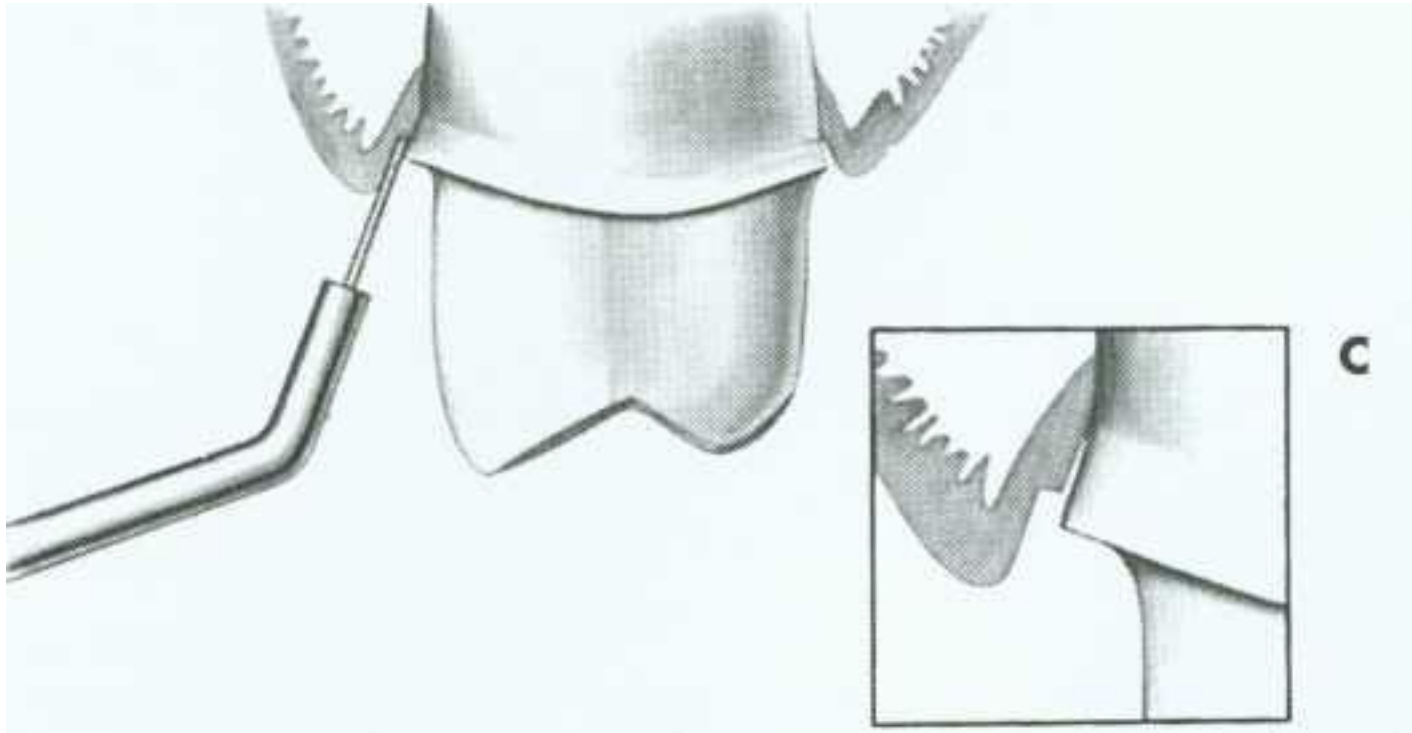
III) SURGICAL METHOD

- ▶ IND: generalized gingival hypertrophy and bleeding or in cases of increasing the crown length
 - ▶ Done by gingivectomy to the attachment epithelial level using a scalpal
 - ▶ Electro-surgery: easier, faster, no bleeding
 - ▶ Uses an electric current passing thru an electrode, thus producing heat.
 - ▶ Needs practice to get the best results
- 

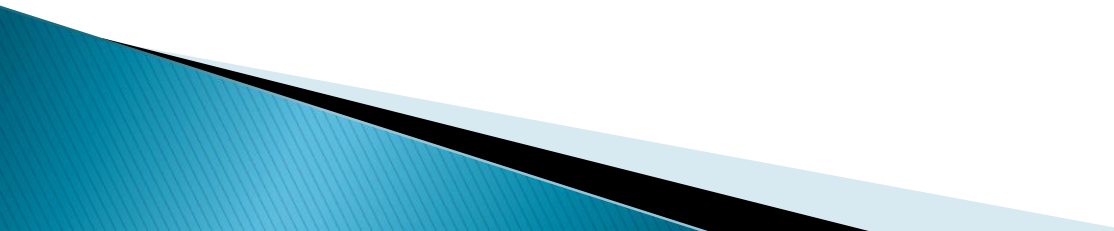
- ▶ Contraindications of electro-surgery:
 - ▶ Patients with pacemakers (EMF)
 - ▶ Patients with delayed healing (radiotherapy)
 - ▶ Thin labial gingiva (upper canine)
- 

Electro-surgery Unit





Rotary Curettage

- ▶ It is the procedure of using a rotary instrument to produce a trough by removing the inner epithelial layer of the gingival sulcus
 - ▶ A torpedo shaped dental stone is used only on healthy gingival tissue (repair without shrinkage)
- 

Posterior troughing



Lasers

- ▶ A dental laser is used for gingivectomy
- ▶ It is painless, bloodless, sterile, fast and easy but expensive and needs certification to use the laser

